



**Name:** ..... **Class:** .....

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## **Task 1**

1. Using the client-server model, a school network uses a central file server to manage their files.

(a) Briefly explain the role of a server when a file is requested by a client terminal.

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(b) Briefly explain the role of the client computer in this relationship.

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(c) List some of the data that is held on a school server for use by:

(i) Students.

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(ii) Teachers.

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(iii) The school administration.

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(iv) How are the PCs in the classroom likely to be connected to the school server?

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- (v) The file server manages data files held on the server. What other types of server may be needed to run the school network efficiently? Explain briefly what each one does.

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- (d) Give **two** advantages of a client-server network over a peer-to-peer network.

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2. Describe how a web server may deal with a request from a client-browser to display a web page.

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3. Describe one scenario where a peer-to-peer network would be advantageous over a client-server network, and suggest why.

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## Task 2

Cloud based software is becoming increasingly common to use.

(a) List **five** examples of cloud based software.

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(b) Research the advantages of cloud based software.

Work in pairs to write down as many advantages as you can.

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## Task 3

Ask your teacher to run a speed test on your school's network for the whole class. Do not run this yourself as the test won't be accurate if lots of students do it at the same time.

<https://www.speedtest.net/>

(a) What is the connection speed for the school?

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(b) Is this the maximum speed your school can deliver?

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(c) The bandwidth is how much data you can upload and download per second.

What is PING measuring?

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(d) Using the speed of the school network that you found in part (a), how long will it take to deliver the following files?

| File                      | How long to download from the school network? |
|---------------------------|-----------------------------------------------|
| A 1 MB word document      |                                               |
| A 3 MB high quality photo |                                               |
| A 700 MB CD               |                                               |
| A 4 GB video file         |                                               |